means for introducing a separation gas between each of said plurality of samples in said fluid flow stream; and

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means for selectively analyzing each of said plurality of samples for said particles in a flow cytometer.

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2. The flow cytometry apparatus of claim 1, wherein said means for moving said plurality of samples comprises an autosampler.

3. The flow cytometry apparatus of claim 2, wherein said autosampler includes a probe and said flow cytometry apparatus includes a means for exposing a probe tip of said probe to a jet of gas to remove liquid from said probe tip.

4. The flow cytometry apparatus of claim 2, wherein said autosampler includes a probe having a conical tip.

5. The flow cytometry apparatus of claim 2, wherein said autosampler includes a hydrophobic probe.

6. The flow cytometry apparatus of claim 5, wherein said probe comprises a hydrophobic material.

7. The flow cytometry apparatus of claim 5, wherein said probe is coated with a hydrophobic material.

8. The flow cytometry apparatus of claim 2, wherein said means for moving said plurality of samples further comprises a peristaltic pump.

9. The flow cytometry apparatus of claim 8, wherein a portion of said fluid flow stream passing through said peristaltic pump is contained within a high speed multi-sample tube.

10. The flow cytometry apparatus of claim 8, wherein said peristaltic pump is located along said fluid flow stream between said autosampler and said means for selectively analyzing said plurality of samples.

11. The flow cytometry apparatus of claim 10, further comprising a single length of tubing extending from said autosampler to said means for selectively analyzing said plurality of samples.

12. The flow cytometry apparatus of claim 11, wherein said single length of tubing comprises high speed multi-sample tubing.

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13. (Amended) The flow cytometry apparatus of claim 12, wherein said high speed multi-sample tubing comprises poly vinyl chloride tubing having an inner diameter about 0.01 to about 0.03 inches and a wall thickness of about 0.01 to about 0.03 inches.

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14. (Amended) The flow cytometry apparatus of claim 12, wherein said high speed multi-sample tubing comprises poly vinyl chloride tubing having an inner diameter about 0.02 inches and a wall thickness of about 0.02 inches.

15. The flow cytometry apparatus of claim 1, wherein said separation gas comprises air.

16. The flow cytometry apparatus of claim 1, wherein said plurality of samples are homogenous.

17. The flow cytometry apparatus of claim 1, wherein said plurality of samples are heterogeneous.

18. The flow cytometry apparatus of claim 1, wherein said particles comprise biomaterials.

19. The flow cytometry apparatus of claim 18, wherein said biomaterials are fluorescently tagged.

20. The flow cytometry apparatus of claim 1, further comprising a well plate including said plurality of respective source wells.

21. The flow cytometry apparatus of claim 20, wherein said well plate includes at least 96 source wells.

22. The flow cytometry apparatus of claim 20, wherein said well plate includes at least 384 source wells.

23. The flow cytometry apparatus of claim 20, wherein said well plate includes at least 1536 source wells.

24. The flow cytometry apparatus of claim 20, wherein said well plate includes wells having a conical shape.

25. The flow cytometry apparatus of claim 20, wherein said well plate is mounted in an inverted position.

26. The flow cytometry apparatus of claim 1, further comprising a means for injecting a buffer fluid between adjacent samples in said fluid flow stream.

27. The flow cytometry apparatus of claim 1, wherein at least one of said plurality of samples includes a drug present therein.

28. A method for analyzing a plurality of samples comprising:

moving a plurality of samples comprising particles into a fluid flow stream;

separating adjacent ones of said plurality of samples from each other in said fluid flow stream by a separation gas; and

selectively analyzing each of said plurality of samples for said particles where the separation gas is retained.

29. The method of claim 28, further comprising intaking said plurality of samples into said fluid flow stream from a plurality of respective wells.

30. The method of claim 28, wherein said plurality of samples are separated in said fluid flow stream by intaking air into said fluid flow stream between intaking adjacent samples of said plurality of samples.

31. The method of claim 28, wherein at least 6 samples are selectively analyzed per minute.

32. The method of claim 28, wherein at least 60 samples are selectively analyzed per minute.

33. The method of claim 28, wherein at least 120 samples are selectively analyzed per minute.

34. The method of claim 28, wherein at least 240 samples are selectively analyzed per minute.

35. The method of claim 28, wherein said plurality of samples are homogenous.

36. The method of claim 28, wherein said plurality of samples are heterogeneous.

37. The method of claim 28, wherein said particles comprise biomaterials.

38. The method of claim 28, wherein said biomaterials are fluorescently tagged.

39. The method of claim 28, wherein said samples have a sample size ranging from at least about 0.1 to at least about 10 μl.

40. The method of claim 28 wherein said samples flow in said fluid flow stream at a flow rate of at least about 0.1 to at least about 10 μl/sec.

41. The method of claim 28, further comprising injecting a buffer fluid between at least two adjacent samples in said fluid flow stream

42. The method of claim 28, by which said plurality of samples are sorted on a particle by particle basis in a flow cytometer.

43. The method of claim 28, further comprising mixing at least one of said plurality of samples with at least one drug.

44. The method of claim 43, wherein said at least one drug is mixed with said at least one of said plurality of samples in a sample source well.

45. The method of claim 43, wherein said at least one drug is mixed with said at least one of said plurality of samples in said fluid flow stream.